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JP-07287701 A (Kishimoto) further in view of Gould et al., U.S. Patent No. 5,966,700 (Gould), and further in view of Eder U.S. Patent No. 6,393,406 (Eder). This ground of rejection is addressed below following a brief discussion of the present invention to provide context. Claims 1-24 are presently pending.

Summary of the Invention

The present invention provides systems and methods for optimizing the use of mortgage insurance based upon projections of future home equity. Mortgage insurance protects a lender against a default by a home buyer on a mortgage. Mortgage insurance provides home buyers with greater flexibility in choosing a property, because with mortgage insurance a home buyer can purchase a home with significantly less than the minimum down payment of 20% or more that otherwise typically is required. Thus, mortgage insurance can be used to increase a home buyer's "leverage," allowing a home buyer to buy a more expensive property with a smaller percentage of initial equity. It is often assumed by potential real estate purchasers that real estate prices will rise over time as a percentage of the initial purchase price. Provided that the borrower's initial assumption concerning the appreciation of real estate values over time proves to be correct, and assuming that the borrower holds onto the property for the requisite number of years, it is generally to the borrower's advantage from the point of view of maximizing future home equity, to purchase as expensive a property as the borrower initially can afford. Thus, if a home buyer uses mortgage insurance to purchase a more expensive property, then over the course of several years the home buyer may have a greater dollar amount of home equity than

would have been the case if the home buyer had not used mortgage insurance and instead had initially purchased a less expensive property with the same initial down payment.

However, despite their potential benefits, mortgage insurance products are often not well understood by prospective home buyers and can therefore be difficult to sell. The systems and methods of the present invention calculate a maximum dollar amount for the purchase price of a house that the borrower can afford, based upon an optimal loan-to-value ratio achievable using mortgage insurance, that allows a prospective home buyer to see on a case-by-case basis how much additional equity can be built up through the use of mortgage insurance.

Fig. 3 shows the inputs and outputs in one system according to the present invention. The outputs are shown as a series of tables 34, providing analyses for varying loan-to-value (LTV) ratios, ranging from 100% down to 80%. For example, LTVs of 80% and 97% mean that the down payment made on a property is 20% and 3%, respectively. Within each table 34, the system lists the borrower's cumulative projected future home equity position for years one through ten. The data contained in the tables 34 in Fig. 3 provide guidance to a borrower in determining an optimum LTV ratio, that is, an LTV ratio that maximizes projected future home equity. Once this optimum LTV ratio is determined, the calculator generates a graphical representation 36 comparing the buildup of projected future home equity at the optimum LTV ratio of 97%, with the projected future home equity at the minimum LTV ratio of 80% that is typically required by the lender if mortgage insurance is not purchased.

The Section 103 Rejection

Claims 1-24 were rejected under 35 U.S.C. §103(a) based on Ryan in view of Kishimoto in further view of Gould in further view of Eder. Applicant respectfully traverses this rejection and requests that it now be withdrawn in view of the discussion below.

Introduction

The Official Action acknowledges various deficiencies of Ryan, Kishimoto and Gould in its discussion, including the following:

> Ryan fails to teach calculating a maximum dollar amount of a house purchase price that a borrower can afford, based upon an optimal loan to value ratio achievable using mortgage insurance that maximizes future home equity and calculating a maximum dollar amount of a house purchase price that a borrower can afford without using mortgage insurance. Official Action, page 7, lines 12-16.
>
> Ryan and Kishimoto fails to teach based upon an optimal loan to value ratio, using mortgage insurance maximizing future home equity. Official Action, page 4, lines 14 and 15.
>
> Ryan, Kishimoto and Gould fails to teach maximizing future home equity. Official Action, page 4, line 18.

The Official Action accordingly acknowledges that Ryan itself is defective as a reference in all of these acknowledged regards, and that Ryan itself fails to disclose and fails to suggest the subject matter defined in any of the pending claims 1-24. The Official Action further accordingly acknowledges deficiencies in a combination of Ryan and Kishimoto as well as a combination of Ryan, Kishimoto and Gould, purportedly remedied by the combination of the four references including the newly cited Eder. As shown below, the Official Action

mischaracterizes the disclosure in Kishimoto. Further, the characterizations of Gould and Eder in the Official Action are wholly unsupported by those references, which accordingly add nothing to Ryan. Therefore, even if the combination of these four references were justified, which Applicant also contests, such a combination fails to remedy both the acknowledged deficiencies in Ryan, as well as the acknowledged deficiencies of any combinations of Ryan, Kishimoto and Gould.

Ryan

Ryan is entitled "Computer System for Producing an Illustration of an Investment Repaying a Mortgage". Ryan describes a financial product which allows an individual to purchase a home using a mortgage without having to make the cash down payment typically required by the mortgage lender. Instead of making a down payment of 10 or 20 percent, for example, to be used as collateral for the mortgage, the individual purchases a permanent life insurance policy. The individual then makes a collateral assignment of the life insurance policy to the lender. Thus, the lender is protected in the event of default by the individual, and the individual's money can grow through the permanent life insurance policy. This life insurance policy is simply collateral for a home loan, and is used instead of private mortgage insurance and the traditional down payment.

In contrast to Ryan, the present invention provides systems and methods for optimizing the use of mortgage insurance based upon projections of future home equity by showing prospective home buyers how much additional equity can be built up through the use of

mortgage insurance. In one aspect, the present invention provides techniques for calculating a maximum dollar amount for the house purchase price that a borrower can afford, including both a calculation with mortgage insurance that maximizes future home equity, and a calculation without using mortgage insurance. See claim 1, for example, which recites "the central processing unit...calculating a maximum dollar amount of a house purchase price that the borrower can afford, based upon an optimal loan-to-value ratio, achievable using mortgage insurance, that maximizes future home equity, the central processing unit further calculating a maximum dollar amount of a house purchase price that the borrower can afford without using mortgage insurance..." This technique encourages the home buyer to purchase mortgage insurance as the buyer is informed that if mortgage insurance is used to purchase a more expensive property, then over the course of several years the home buyer may have a greater dollar amount of home equity than would have been the case if the home buyer had not used mortgage insurance and instead had initially purchased a less expensive property with the same initial down payment. Ryan fails to disclose and fails to suggest such a technique.

Ryan describes a financial product that uses life insurance as collateral and as a mechanism for repayment of a mortgage. The present invention teaches something very different, an evaluation tool for optimizing a borrower's use of mortgage insurance based upon projections of future home equity by "calculating a maximum dollar amount of a house purchase price that the borrower can afford, based upon an optimal loan-to-value ratio, achievable using mortgage insurance, that maximizes future home equity" as recited in claims 9, 23 and 24, for example. Ryan fails to disclose and fails to suggest such a technique. The Official Action so

acknowledges where it states at page 7, lines 12-16, that "Ryan fails to teach calculating a maximum dollar amount of a house purchase price that a borrower can afford, based upon an optimal loan to value ratio achievable using mortgage insurance that maximizes future home equity and calculating a maximum dollar amount of a house purchase price that a borrower can afford without using mortgage insurance." See also, Official Action, page 4, lines 8-11; page 11, lines 5-8; and page 13, lines 7-10.

Applicant agrees with the quoted characterization of Ryan, except that it substantially understates Ryan's inadequacy as a reference. As described above, the present invention relates to techniques that employ mortgage insurance to facilitate the purchase of property so that the purchase price may be at the highest possible price that the buyer can afford, in order to maximize the leverage of a down payment for maximum growth of future home equity.

In contrast, Ryan relates to systems and methods for bundling home purchase financing and life insurance. Ryan's life insurance is not the same product as mortgage insurance. Moreover, Ryan fails to disclose and fails to suggest the use of such life insurance to facilitate the purchase of property at the highest affordable purchase price, in order to maximize the leverage of a down payment for maximum growth of future home equity. As acknowledged by the Official Action, "Ryan and Kishimoto fails to teach based upon an optimal loan to value ratio, using mortgage insurance maximizing future home equity." Official Action, page 4, lines 14 and 15; see also, page 7, lines 20 and 21; page 11, lines 12 and 13; and page 13, lines 14 and 15. Further, the Official Action acknowledges that "Ryan, Kishimoto and Gould fails to teach

maximizing future home equity." Official Action, page 4, line 18; see also, page 11, line 16; and page 13, line 18.

Ryan explains that "in the U.S. there is a unique problem of how to lawfully combine a mortgage and life insurance and additionally make a viable financial product." Ryan, col. 2, lines 57-59. Ryan discloses, as a solution to that problem, systems and methods for preparing, processing and transmitting life insurance premium quotes as part of a mortgage calculation in support of a new financial product. In the new financial product, life insurance is used as collateral and as a means for repayment of a mortgage, and facilitates the purchase of real estate without, or with a greatly reduced, down payment. The key components to the transaction may include: a balloon repayment mortgage, life insurance coverage equal to the amount of the mortgage, and a separate vehicle for accumulating principal. Ryan col. 9, lines 13-17 and lines 40-57. Other instruments that may be used as collateral instead of life insurance include, for example, term insurance used in conjunction with a security such as a zero coupon bond, or term insurance used in conjunction with a deferred annuity. Ryan, col. 43, line 64 through col. 44, line 4.

Ryan makes sparse references to mortgage insurance, but those references expressly teach that Ryan's systems and methods generally do not involve mortgage insurance:

> PMIPCT: This is the cost of private mortgage insurance. **Because of its enhanced security to lenders, this is not expected to be a cost with the Ryan Mortgage.** Conventional mortgages typically require private mortgage insurance if the down payment amount is less than 20 percent of the purchase price of the home. The system allows an input in FIG. 3B-2, Block 182, but the default is 0.5 percent of the original mortgage balance annually until the mortgage balance goes below 80% of the original purchase price of the home. **The system uses zero for the Ryan Mortgage.** However,

> other values may be used for both the Ryan Mortgage and the conventional mortgage. Ryan col. 65, lines 52-63. (emphasis added)
>
> Block 150 computes a conventional mortgage, term insurance cost, and private mortgage insurance cost such that Block 152 can produce an illustration of the Ryan Mortgage in comparison with a conventional mortgage. Ryan col. 29, lines 50-57; and excerpted from text in Fig. 3B-7.
>
> The attached illustration shows how life insurance can be used **instead of the traditional down payment or private mortgage insurance** approach to provide security for your mortgage. Excerpted from text in Fig. 27A. (emphasis added)
>
> With The Ryan Mortgage, you will enjoy greater tax deductions from interest than with a conventional mortgage. You will enjoy a low up-front payment. Because your equity in the life insurance policy cash value will accumulate more rapidly than conventional mortgage amortization, **you will not have to pay private mortgage insurance.** Excerpted from text in Fig. 27E. (emphasis added)

The weight of Ryan's insurance discussion relates to life insurance. Life insurance does, as disclosed by Ryan, include death benefits to retire the mortgage upon the death of the borrower. However, any such death benefits are not utilized in the manner taught and claimed by the present invention. Further, life insurance as utilized by Ryan is intended to perform substantial functions that mortgage insurance, as that vehicle is typically understood, cannot be used to perform. For example, Ryan discloses the use of premiums paid on life insurance as a substitute for the initial down payment on a mortgage, and the use of accumulated cash values to retire the outstanding principal on a mortgage in the event of the borrower's survival. Ryan, col. 1, lines 7-24; see also for example, col. 7, line 52 through col. 8, line 10. To correct the record, Ryan is misquoted at page 9, line 4 of the Official Action as referring to "mortgage insurance information", based on several citations to Ryan which instead refer to "mortgage and insurance information." The corrected clause does not refer to mortgage insurance. To sum up, Ryan is

going in a different direction than does the present invention and does not disclose and does not suggest systems or methods for optimizing a borrower's use of mortgage insurance based on projections of future home equity. Ryan to the contrary discloses mortgage insurance as being undesirable and normally unneeded for one following his teachings.

Ryan does not teach and does not render obvious techniques for optimizing a borrower's use of mortgage insurance based upon projections of future home equity, as claimed. Private mortgage insurance is not equivalent to life insurance. Nothing in Ryan indicates a recognition of the problems addressed by the present invention. Further, nothing in Ryan indicates a system which would solve the problems addressed by the present invention.

Kishimoto

Kishimoto is a newly relied upon reference. Applicants object to the form of Kishimoto, as it consists of a Japanese language specification and an English translation including portions that are unclear or incomprehensible. Kishimoto discloses a housing purchase simulation system "...which mainly enabled the simulation of a homebuyer's required annual income or transition [sic] of the housing price which can be purchased." Kishimoto, par. 0011. Nowhere in the English translation of Kishimoto, in the abstract or paragraphs 0012-0015 as cited by the Official Action, or elsewhere, is there any reference to "calculating a maximum dollar amount of a house purchase price that a borrower can afford." To the contrary, Kishimoto states as a problem to be solved, "...performing synthetically evaluation what price of a residence can purchase reasonable by what self-finance for a purchaser..." Kishimoto, par. 0009; see also par. 0004. Kishimoto is

thus concerned with calculating a "reasonable" price that a buyer can pay while taking self-financing and other parameters into account, not with calculating a "maximum" price that a buyer can afford. Applicants accordingly object to the asserted relevance of Kishimoto as not supported by the English translation document.

Kishimoto discusses various provider side and purchaser side fund condition data entries, and stored loan condition data. Kishimoto, par. 0012 and par. 0013. As understood from those two paragraphs of the reference, Kishimoto fails to disclose and fails to suggest the use of mortgage insurance in any regard in these housing transactions.

Ryan and Kishimoto, combined as the Official Action proposes, would teach a system for calculating a "reasonable" price of a home that a buyer can afford using life insurance as collateral, in place of mortgage insurance and a down payment. Such a combination fails to disclose and fails to suggest the presently claimed subject matter. Moreover, one of ordinary skill in the art would not be motivated to combine Kishimoto and Ryan. Kishimoto is concerned with the problem of enabling calculation of the house price that a buyer can reasonably afford given his self-financing ability and other circumstances. Ryan is concerned with the very different problem of facilitating the use of life insurance as a replacement for mortgage insurance and a down payment. There is nothing in either of these references, without the addition of hindsight knowledge of Applicant's invention, to motivate their combination.

Gould

Gould is a newly relied upon reference. Gould relates to a system for managing and recording data for a mortgage financing agreement, performing all calculations and recording data necessary for allocating mortgage interest and credit risks between a mortgage originator and a funding institution. Gould, col. 1, lines 5-11. The mortgage originator issues a mortgage, and the funding institution agrees to assume certain risks for the mortgage. The mortgage originator and the funding institution enter into a Master Commitment agreement which has an overall credit enhancement value for mortgage funding. A processor calculates a credit enhancement value as a function of a mortgage score reflecting the probability of foreclosure and the mortgage data. Gould, col. 2, lines 22-42. A credit enhancement is a guarantee by the mortgage originator that it will pay loan credit losses under certain conditions. Gould, col. 3, lines 43-45.

Fig. 3 is a flow diagram of the routine used by the program 16 to evaluate and record data relating to individual mortgage loans. The mortgage originator takes the mortgage application and makes the underwriting decision in step 300. The data from the loan is gathered by the mortgage originator for credit enhancement analysis in step 302. The program 16 enters and records the credit enhancement data in step 304. In step 306, the credit enhancement data is stored in a data file related to that loan in the database 18 for later use. The credit enhancement data includes all the information required to calculate credit enhancement for specific loans and is classified by several elements such as the borrower, the property, loan amount, interest rate, etcetera. The credit enhancement data can include the mortgage originator identification

number, loan number, borrower name, income, FICO, property address, property type, occupancy type, loan purpose, loan type, loan amount, interest rate, loan to value ratio, debt ratio, and private mortgage insurance coverage. This data is also logged in the database file affiliated with the mortgage originator in step 308.

The program 16 then proceeds to step 310 where it calculates a mortgage score according to well known methods. The mortgage score is a value representing the probability that a loan may foreclose. The mortgage score and other credit enhancement data are then input for analysis using the S&P Levels model in step 312. The credit enhancement dollar amount is calculated for each specific loan by the S&P Levels model in step 314. In step 316, the program 16 displays the calculated credit enhancement dollar amount and other identification information such as the mortgage originator number, loan number, etcetera on display 20. The program 16 then transmits the credit enhancement data displayed in step 316 to the mortgage originator via the fax/modem 24 in step 318. Gould, col. 6, line 14 through col. 7, line 6. The characteristics screen 918 in Fig. 9B has a loan statistics area 922 which displays data such as the PMI percentage and loan to value ratio. Gould, col. 13, lines 10-19.

Gould fails to disclose and fails to suggest using mortgage insurance based upon an optimal loan to value ratio. See the Official Action for example at page 4, lines 16 and 17. The suggestion of the Official Action to the contrary is incorrect. There is no calculation of mortgage insurance rates versus corresponding loan to value ratios carried out in Gould's system. There is no means or step whatsoever of calculation of a private mortgage insurance rate in the operation of Gould's system or method. Gould's system merely receives and displays private mortgage

insurance and loan to value ratio data previously calculated elsewhere by means and steps not disclosed in Gould, and uses such data together with other data to calculate credit enhancement values. Credit enhancement values, a discussion of which constitutes the Gould citation relied on in the Official Action, relate to allocation of credit risk between a loan originator and a funding institution. Applicants object to the Official Action's characterization of Gould in this rejection as completely unsupported by Gould.

Eder

Eder is a newly relied upon reference. Eder relates to a method of and system for business valuation, and more particularly, to an automated system that determines the relative contribution of different elements of the business in setting a total valuation. Eder, col. 1, lines 8-11. Eder fails to disclose and fails to suggest any applicability of its teachings to the valuation of homes, or to home mortgages. The Official Action states for example at page 4, lines 19 and 20 that "Eder discloses maximizing future home equity", citing col. 1, lines 40-60 and col. 10, lines 25-45. This characterization of Eder is incorrect, as Eder makes no references whatsoever to a "home" or to "home equity" or to a mortgage in the cited text. At the cited portion of col. 1, Eder explains how income valuations and asset valuations are carried out for valuing a business. The text at col. 10 details a six stage process for valuation of an enterprise.

Ryan, Kishimoto, Gould and Eder, combined as the Official Action proposes, might be considered to teach a system for calculating a "reasonable" price of a home that a buyer can afford using life insurance as collateral, in place of mortgage insurance and a down payment.

Eder, like Gould, adds nothing to this combination. Such a combination fails to disclose and fails to suggest the subject matter claimed by any of the pending claims. Moreover, one of ordinary skill in the art would not be motivated to combine Eder with Kishimoto, Gould and Ryan, because Eder relates to valuation of businesses. Eder fails to disclose and fails to suggest the use of his system and method for home valuation, or for mortgage calculations, or how to do so.

Dependent Claims

Regarding the dependent claims, the above discussion is fully dispositive. These claims address a number of combinations of limitations not taught and not rendered obvious by the relied upon references when properly considered in combination. See, for example, claims 5 and 13 which claim calculating "the maximum dollar amount of a house that can be purchased by the borrower, constrained by cash available to the borrower to close"; and claims 6 and 14 which claim calculating "the maximum dollar amount of a house that can be purchased by the borrower, constrained by the borrower's income". These claims are not taught and are not rendered obvious by the cited references when properly considered in combination.

See also dependent claims 2 and 10 which claim providing "the results of the calculations in table format"; claims 3 and 11 which claim providing "a graphical representation of the results of the calculations"; claims 4 and 12 which claim "downloading software components and mortgage insurance information"; claims 7 and 15 which claim calculating "the projected home equity after predetermined periods of time"; and claims 8 and 16 which claim calculating "the

cumulative projected future home equity for years one through ten." These claims are not taught and are not rendered obvious by the cited references when properly considered in combination.

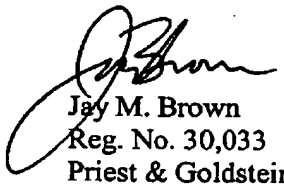
Conclusory Statements

There is no support in the cited references for the conclusory speculations made as to obviousness with respect to these claims. Applicant's statement of applicable law in Appellant's Brief on Appeal filed on August 18, 2003 is repeated herein. Applicant does not acquiesce in and makes no admission regarding the contents of the Official Action's statement of law, which are often incorrect, incomplete or inappropriate in the context of the present case.

Conclusion

All of the presently pending claims, as amended, appearing to define over the applied references, withdrawal of the present rejection and prompt allowance are requested.

Respectfully submitted,



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